

REMARKS

This Amendment and Request for Reconsideration is submitted in response to an outstanding Office Action (Final Rejection) dated May 19, 2005, the shortened statutory period for response set to expire on August 19, 2005. Accordingly, no extension of time or fee is believed due. In the event that the Examiner determines that an extension of time or fee is due, the undersigned hereby petitions for such extension of time, and authorizes the Commissioner to charge deposit account 13-3250 for any required fee.

I. Status of the Claims

Please cancel claims 1, 6-9 and 17 without prejudice, amend claims 2-5 and 10-16, and add new claim 18 as indicated. Claims 2-5, 10-16 and 18 are currently pending in the application. Claim 18 is an independent claim.

Applicants acknowledge the Examiner's citation of statutory authority as a basis for claim rejections.

II. Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1, 2-5, 10-13, 15-16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,014,647 to Nizzari et al. ("*Nizzari*") in view of U.S. Patent No. 5,964,839 to Johnson et al. ("*Johnson*").

Claims 6, 8, and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nizzari* and further in view of *Johnson* and further in view of U.S. Patent No. 6,029,195 to Herz ("*Herz*").

Claims 7 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nizzari* and further in view of *Johnson* and further in view of "**applicant's admissions.**"

As fully set out and stated in the previous responses, Applicants do not admit that *Nizzari* is prior art to the claimed inventions, and Applicants have explained why the

combination of *Nizarri* and *Johnson* do not disclose all of the features of independent claims 1 and 17, and that the Examiner has not provided a proper motivation to combine *Nizarri* and *Johnson*. In the interest of reaching allowance of at least some of the claimed subject matter, applicants have cancelled independent claims 1 and 17 without prejudice to those earlier arguments, and have presented new independent claim 18 modeled from previous independent claim 1, dependent claims 6, 7, 8 and 9, all of which stand rejected by the Examiner.

New claim 18 recites collecting interaction data; computer processing said collected interaction data with a connectivity measure for assessing how well entities are connected to their environments, wherein said connectivity measure employs a decay factor to account for the effects of indirect interactions among entities and is a recursive mathematical algorithm in the form of:

$$C(E, L) = \sum_{1 \leq k \leq N} [w(k) + C(k, L-1)/f_d]$$

$$C(E, 0) = 0$$

where $C(E, L)$ denotes connectivity of entity E at depth L where E has N direct interactions, $w(k)$ is the weight of direct interactions from k , and f_d is the decay factor;

computer processing said collected interaction data a diversity measure for assessing how diverse entities are in their interactions with or connections to their environment, wherein said diversity measure employs a decay factor to account for the effects of indirect interactions among entities and is a recursive mathematical algorithm in the form of:

$$D(E, L) = \sum_{1 \leq k \leq N} [v(k, p) + D(k, L-1)/f_d]$$

$$D(E, 0) = 0$$

where, $D(E, L)$ denotes diversity of entity E at depth L where E has N direct interactions, and $v(k, p) = 0$ if the property of k along the diversity dimension of interest is already

within p , where p is a set of properties encountered so far, including the property of E or otherwise, $v(k,p) = 1$; and displaying said processed interaction data and appropriate raw interaction data for interaction analyses.

In the rejection of claim 1, the elements of which are found in new claim 18, the Examiner recognizes that *Nizzari* fails to disclose computer processing of collected interaction data with connectivity and diversity measures wherein connectivity is a measure for assessing how well entities are connected to their environments and diversity is a measure for assessing how diverse entities are in their interactions with or connections to their environment. *See*, May 19, 2005 Office Action at page 3. Nonetheless, the Examiner concluded that *Johnson* discloses the claimed connectivity and diversity measures on the basis that *Johnson*'s "connectivity data" "represent both connectivity and diversity according to the applicant's definition since data packets/bytes sent versus data packets/bytes received during a data stream connection has the ability to tell a user how well connected, or how diverse the connection is." *Id.* at pages 3-4.

As explained in the earlier response, applicants respectfully submit that *Johnson* does not disclose or suggest the claimed connectivity and diversity measures. "Connectivity," as recited in the claims, is a measure for assessing how well entities are connected to their environments, and "diversity" is a measure for assessing how diverse entities are in their interaction with or connections to their environment." *Johnson* discloses collection and monitoring of data, but it does not disclose a measure for processing collected data. The Examiner appears to recognize this, which may explain the Examiner's statement that the claimed connectivity and diversity measures can be inferred because *Johnson*'s collected data "has the ability to tell a user how well connected, or how diverse the connection is" (emphasis added). However, the mere disclosure of collected data, which in hindsight *could have been* processed by someone to determine how well connected or how diverse the connections were, is

insufficient to disclose or suggest the connectivity and diversity measures themselves, that are used to process the collected data. Thus *Johnson* does not disclose, either expressly or implicitly, the claimed connectivity and diversity measures. In addition, *Johnson* does not disclose or suggest processing of collected data, especially with connectivity and diversity measures. Also, Applicants respectfully submit that the combining of *Nizzari* and *Johnson* is improper in this case, for there is no teaching that shows how to combine, or motivation for combining, *Johnson's* inbound/outbound household communication activity information with *Nizzari's* system/method of tracking customer interaction.

Therefore, neither *Nizzari* nor *Johnson*, alone or in combination, discloses or suggests processing of collected interaction data with connectivity and diversity measures. At least for this reason, applicants submit that independent claim 18, and the claims that depend therefrom are allowable over the cited references, and ask the Examiner to withdraw the rejection as to this basis.

In the rejection of claims 6 and 8, the elements of which are found in new claim 18, the Examiner recognizes that *Nizzari* and *Johnson*, fail to disclose wherein said connectivity/diversity measure is a recursive mathematical algorithm that employs a decay factor to account for the effects of indirect interactions among entities. Then, the Examiner states that *Nizzari* “would have utilized a recursive mathematical algorithm with the motivation of calculating interaction data for customers of the system.” Why or where *Nizzari* would find this motivation of “calculating interaction data for customers of the system” is entirely unstated, and is nothing more than a restatement of what the claim calls for, which is a classic case of hindsight.

The Examiner then relies on *Herz* to disclose “wherein said connectivity/diversity measure is a recursive mathematical algorithm that employs a decay factor to account for the

effects of indirect interactions among entities ... in an analogous art for the purpose of calculating how much files are accessed by multiplying by a decay factor. The Examiner then states that it would have been obvious to incorporate the decay factor of *Herz* into *Nizzari's* system "with the motivation of determining the rate that interactions are decreasing with respect to customer interactions." Again, why or where one of ordinary skill would find this motivation of "determining the rate that interactions are decreasing with respect to customer interactions" is entirely unstated, and is nothing more than a restatement of what the claim calls for, which is a classic case of hindsight. At least for this reason, applicants submit that independent claim 18, is allowable over the cited references, and ask the Examiner to withdraw the rejection as to this basis.

In the rejection of claims 7 and 9, the elements of which are found in new claim 18, the Examiner recognizes that *Nizzari* and *Johnson*, fail to disclose the specific formula recited. The Examiner then relies on "**applicant's admissions**" (page 5 of the specification, line 19- page 6 line 4) of applicant's own patent specification as disclosing the specific formula. The Examiner states that "[a]pplicant's admission disclose this limitation for the purpose of showing a general formulation of measuring connectivity." As motivation for looking to applicants own specification to disclose the claims of applicant's own patent application, the Examiner states that "one of ordinary skill in the art ... [would] utilize connectivity formulas with the motivation of determining or estimating the user's interest and successfully analyzing the user's interaction.

Applicants are dumbfounded. Not only is the Examiner relying on hindsight to find the claims obvious, the Examiner is relying entirely on applicant's own patent specification as support for the obviousness rejection, somehow trying to contort the language of the detailed description of the invention contained within the specification into "**applicant's admissions.**" Nothing could be further from the truth. The Examiner's approach as to the rejection of claims 7

and 9 and therefore new claim 18 is just plain wrong and is without any basis in fact or the law.

The part of Applicant's specification that the Examiner contends is an admission is found on pages 5 and 6 of the specification. Those pages are in the part of the specification titled **"Detailed Description of the Preferred Embodiment."** Applicant's patent specification at pages 5 and 6 states :

Connectivity is a measure for assessing how well entities are connected to their environment. "Entity", as used herein, includes individuals as well as groups, such as a department within an organization. Generally, the connectivity measure is a recursive measure that uses an appropriate decay factor for accounting the effects of indirect connections (or interactions) up to a certain level of depth. Connectivity may be measured in different ways. The following general formulation may be used as a basis for connectivity analysis: [equation] ... While several alternatives exist for decaying the effects of indirect connections, typically either a distance-based measure or a degree-based measure is used as a decay factor.

Diversity is a measure for assessing how diverse entities are in their interactions with or connections to their environment. As with the connectivity measure, the diversity measure is also a recursive measure that uses an appropriate decay factor for accounting the effects of indirect interactions (connections) up to a certain level of depth. Depending on analysis needs, diversity may be measured along dimensions, such as age, gender and business types. Diversity may be measured in different ways. The following general formulation may be used as a basis for diversity analysis: [equation] ... Using connectivity and diversity measures in heuristic rules, the data analysis and processing step may also classify entities in a given network into categories outlining the criticality of entities in the network.

As the above clearly shows, there is no statement or "admission" that the provided equations are prior art or that someone of ordinary skill would be motivated to use those equations in the manner recited in the patent specification so as to accomplish the invention.

Applicants are required under 35 U.S.C. § 112 to describe their invention, which they have done. The Examiner is now using that statutory requirement to describe the invention as **"applicant's admission"** in order to reject the claims as obvious. This is factually and legal unsupported and for all of the reasons provided, the rejection of claim 18 must be withdrawn, with claim 18 and the claims that depend therefrom allowed.

III. Request for Reconsideration

Applicants respectfully submit that the claims of this application are in condition for allowance. Accordingly, reconsideration of the rejection and allowance is requested. If a conference would assist in placing this application in better condition for allowance, the undersigned would appreciate a telephone call at the number indicated.

Respectfully submitted,
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